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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,967	10/29/2003	Clive Paul Hohberger	3031	8000
31424	7590	08/11/2004	EXAMINER	
BABCOCK IP LLC 24154 LAKESIDE DRIVE LAKE ZURICH, IL 60047			BROWN, VERNAL U	
			ART UNIT	PAPER NUMBER
			2635	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/695,967	<b>Applicant(s)</b> HOHBERGER ET AL.	
	<b>Examiner</b> Vernal U Brown	<b>Art Unit</b> 2635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09234149.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The application of Clive Hohberger for Identification System with Forward Error correction filed October 29, 2003 has been examined. Claims 1-21 are pending.

#### ***Specification***

The disclosure is objected to because of the following informalities: The status of the related applications on page 1 need to be updated. Appropriate correction is required.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6686829. Although the conflicting claims are not identical, they are not patentably distinct from each other.

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Regarding claims 1 and 15, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system including: an interrogator for transmitting a radio frequency interrogation signal; a plurality of radio frequency transponders; each transponder being operative in response to the interrogation signal to respond with a forward error correctable data message including base data in the form of identifying code encoded as first symbol characters in accordance with a forward error correcting code and first check characters on the transponder identifying base data as defined in the forward error correcting code, and other base data encoded as second symbol characters in accordance with the forward error correcting code and second check characters on the other base data as defined in the forward error correcting code; the first and second check characters for facilitating reconstruction of the transponder identifying base data and other base data in the event of corruption of the forward error correctable data message during transmission; and the interrogator including receiver means for receiving the forward error correctable data message; and data processor means programmed to utilize data relating to the forward error correcting code, the first and second symbol characters and the first and second check characters in the received forward error correctable data message, to reconstruct the transponder identifying base data in the event of corruption of the received forward error correctable data message.

Hohberger et al. (U.S Patent 6686829) claims the transponder respond with base data in the form of identification code but is however silent on claiming transponder identifying base data. One skilled in the art recognizes that the transponder identification base data is the functional equivalent to the transponder identifying base data.

It would have been obvious to one of ordinary skill in the art for the response data from the transponder to include transponder identifying base data in Hohberger et al. because

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Hohberger et al. (U.S Patent 6686829) claims the transponder respond with base data in the form of identification code and one skilled in the art recognizes that the transponder identification base data is the functional equivalent to the transponder identifying base data.

Claims 2-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent 6686829 in view of Snodgrass et al. U.S Patent 5841770.

Regarding claims 2-3, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system in which each transponder being operative in response to the interrogation signal with a forward error correctable data message but is silent on teaching the error correcting code is a member of the class of Trellis code. Snodgrass et al. teaches an electronic identification system including an interrogator (commander station) for transmitting interrogation signal (col. 4 lines 10-13), plurality of radio frequency transponder (col. 3 line 45-46), each transponder is operative in response to the interrogation signal to respond with a forward error correctable data message (col. 9 lines 36-42) and also teaches a more sophisticated error detection schemes in data transmitted from the transponder station will extent the limit of physical separation between interrogator and transponder (col. 9 lines 5-8). Snodgrass et al. also teaches using convolutional type code (col. 9 lines 45-50) but is silent on teaching the error correcting code is a member of the Trellis code. One skilled in the art recognizes that Trellis code is a conventional error correcting code.

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It would have been obvious to one of ordinary skill in the art for the error correcting code to be a member of the class of trellis code because Hohberger et al. claims a transponder being operative to respond to the interrogation signal with a forward error correctable data message and Snodgrass et al. teaches the use of a sophisticated error detection schemes in data transmitted from the transponder station will extent the limit of physical separation between interrogator and transponder and one skilled in the art recognizes that Trellis code is a conventional error correcting code used in error correcting scheme.

Claims 4-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent 6686829 in view of Wood, Jr. U.S Patent 6265963.

Regarding claims 4 and 5, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system in which each transponder being operative in response to the interrogation signal to respond with a forward error correctable data message but is silent on claiming the use of the forward error correcting code that is a member of the class of the linear block codes. Wood, Jr. in an art related Methods of Processing Wireless Communication invention teaches the use the use of Hamming code which is a type of linear block forward error correction code to perform error correction (col. 9 lines 3-7).

It would have been obvious to one of ordinary skill in the art to use forward error correcting code that is a member of the class of the linear block codes in Hohberger et al. as evidenced by Wood, Jr. because Hohberger et al. claims the use of error correction in an identification system and Wood, Jr. teaches the use of Hamming code which is a type of linear

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block forward error correction code to perform error correction in order to produce a reliable communication system.

Claims 6-7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6686829 in view of Wood, Jr. U.S Patent 6265963 and further in view of Patterson U.S Patent 6301221.

Regarding claim 6, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system in which each transponder being operative in response to the interrogation signal to respond with a forward error correctable data message but is silent on claiming the error correcting code is a Binary Golay Code. Patterson in an art related Methods and Apparatus For Encoding Data teaches the use of binary Golay Code and Reed-Muller Code (col. 14 lines 31-37).

It would have been obvious to one of ordinary skill in the art to use the forward error correcting code that is a Binary Golay Code or Reed-Muller Code in Hohberger et al. as evidenced by Wood, Jr. in view of Patterson because Hohberger et al. claims the use of error correcting code to reconstruct the received data and Wood, Jr. in view of Patterson teaches Golay Code or Reed-Muller Code in order to encode a data word for the detection and correction of errors.

Claims 8-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent 6686829 in view of Itoh et al. U.S Patent 5923679.

Regarding claims 8-10, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system in which each transponder being operative in response to the interrogation signal to respond with a forward error correctable data message but is silent on claiming the use of the forward error correcting codes that are members of cyclic block codes, Fire code, Bose-Chaudhuri-Hocquenghem code, or Reed Solomon. Itoh et al. in an art related Error Correction Encoder, Error Correction Decoder Communication System teaches the use of different error correcting codes base on the whether the type of error likely to be encountered is bursty or random error (col. 11 lines 50-54).

It would have been obvious to one of ordinary skill in the art to use forward forward error correcting codes that are members of cyclic block codes, Fire code, Bose-Chaudhuri-Hocquenghem code, or Reed Solomon in Hohberger as evidenced by Itoh et al. because Hohberger et al. claims the use of error correcting code to reconstruct the received data and Itoh et al. teaches the use of different error correcting code base on the nature of the errors likely to be encountered in the system in order to detect and correct errors.

Claim 11 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6686829 in view of Itoh et al. U.S Patent 5923679 and further in view of Wood, Jr. U.S Patent 6265963.



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Regarding claim 11, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system in which each transponder being operative in response to the interrogation signal to respond with a forward error correctable data message but is silent on teaching the error correcting code is Red-Solomon. Itoh et al. in view of Wood, Jr. in an art related Methods of Processing Wireless Communication invention teaches the use the use of Hamming code which is a type of forward error correction code to perform error correction (U.S Patent 6265963, col. 9 lines 3-7).

It would have been obvious to one of ordinary skill in the art to use a forward error correcting type code in Hohberger et al. as evidenced by Itoh et al. in view of Wood, Jr. Hohberger et al. claims the use of error correcting code to reconstruct the received data and Itoh et al. in view of Wood, Jr. teaches the uses of forward error correction code to perform error correction to improve the data integrity of the identification system.

Claims 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6686829 in view of Denne et al. U.S Patent 4691202.

Regarding claim 12, Hohberger et al. (U.S Patent 6686829) claims generating the forward error correctable data message by encoding the transponder identifying base data and other base data as first and second symbol characters in accordance with the forward error correcting code and for generating the first and second check characters on the transponder identifying base data and other base data as defined in the forward error correcting code. Hohberger et al. is however silent on claiming a memory in which the forward error correctable

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messages is stored. Denne et al. in an art related Identification System teaches each transponder includes error correctable data message that is pre-programmed and stored in memory and each transponder responds with the stored error correctable data message in response to the interrogator signal (col. 1 lines 64-67, col. 2 lines 2-4).

It would have been obvious to one of ordinary skill in the art to configured the memory to be programmed with forward error correctable data message and pre-generated by an external code generation means in Hohberger et al. as evidenced by Denne et al. because Hohberger et al. claims generating the forward error correctable data message by encoding the transponder identifying base data and Denne et al. teaches each transponder includes error correctable data message that is pre-programmed and stored in memory to respond to the interrogation signal. Storing error correctable data in memory serve the purpose of simplifying the transponder circuitry.

Claims 13 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6686829 in view of Denne et al. U.S Patent 4691202 and further in view of Wood, Jr. U.S Patent 6466771.

Regarding claim 13, Hohberger et al. (U.S Patent 6686829) claims an electronic identification system including: an interrogator for transmitting a radio frequency interrogation signal and each transponder being operative in response to the interrogation signal to respond with a forward error correctable data message but is silent on teaching the code generator means forms part of the interrogator. Wood, Jr. in an art related Methods of Processing Wireless Communication invention teaches the code generator means forms part of the interrogator (col. 10 lines 31-51) for generating the error correcting code.

It would have been obvious to one of ordinary skill in the art to have the code generator means forms part of the interrogator in Hohberger et al. in view of Denne et al. as evidenced by Wood, Jr. because Hohberger et al. claims an electronic identification system including: an interrogator for transmitting a radio frequency interrogation signal and Denne et al. in view of Wood, Jr. teaches the code generator means forms part of the interrogator for generating the error correcting code.

Claim 16 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of prior U.S. Patent No. 6686829. This is a double patenting rejection.

Regarding claim 16, Hohberger et al. (U.S Patent 6686829) claims the first forward error correcting code and the second forward error correcting codes are of different types.

Claims 17 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6686829.

Regarding claim 17, Hohberger et al. (U.S Patent 6686829) claims the transponder respond with a forward error correctable data message including a set of symbol characters and a first set of check characters. One skilled in the art recognizes that the interrogator transmits multiple signals (which includes a first and second signal) in order to identify the plurality of transponders and the transponder response includes a set of symbol characters and a first set of check characters each time an interrogator signal is received.

It would have been obvious to one of ordinary skill in the art for the interrogator to be controllable to transmit a first and second interrogation signal because Holberger claims the transponder respond with a forward error correctable data message including a set of symbol

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characters and a first set of check characters and one skilled in the art recognizes that the interrogator transmits multiple signals (which includes a first and second signal) in order to identify the plurality of transponders and the transponder response includes a set of symbol characters and a first set of check characters each time an interrogator signal is received.

Claims 18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snodgrass et al. U.S Patent 5841770 in view of Itoh et al. U.S Patent 5923679.

Regarding claims 18 and 21, Snodgrass et al. teaches a transponder for use with an electronic identification system including an interrogator for transmitting an interrogator signal and for receiving response signal from the transponder (col. 4 line 20-21). The transponder includes control means (42) and a data memory (64) arrangement into which programmable data associated with the transponder is stored. The control means is operative in response to an interrogation signal to utilize the data associated with the transponder to cause the transponder to respond with forward error correctable data message (col. 9 lines 42-46). Snodgrass et al. is however silent on teaching the forward error correcting code is Reed-Solomon. Itoh et al. in an art related Error Correction Encoder, Error Correction Decoder Communication System teaches the use of different error correcting codes base on the whether the type of error likely to be encountered is bursty or random error and teaches the use of Reed Solomon code in a bursty error type of environment (col. 11 lines 50-54).

It would have been obvious to one of ordinary skill in the art to use Reed-Solomon as the forward error correcting code in Snodgrass et al. as evidenced by Itoh et al. because Snodgrass et al. suggests the use of forward error correctable data messages and Itoh et al. teaches the use of Reed-Solomon code as the forward error correcting code in order to provide adequate error correcting capability based on the type of error encountered.

Regarding claim 20, Snodgrass et al. teaches reading the base data from memory (col. 9 lines 44-45) and the transponder having a local code generating means forming part of the transponder for locally generating the forward error correctable data message (col. 9 lines 41-46).

Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snodgrass et al. U.S Patent 5841770 in view of Itoh et al. U.S Patent 5923679 and further in view of Denne et al. U.S Patent 4691202.

Regarding claims 14 and 19, Snodgrass et al. teaches a memory (64) storing response data but is silent on teaching the memory is configured to be programmed with forward error correctable data message and pre-generated by an external code generation means. Denne et al. in an art related Identification System teaches each transponder includes error correctable data message that is pre-programmed and stored in memory and each transponder responds with the stored error correctable data message in response to the interrogator signal (col. 1 lines 64-67, col. 2 lines 2-4).

It would have been obvious to one of ordinary skill in the art to configured the memory to be programmed with forward error correctable data message and pre-generated by an external code generation means in Snodgrass et al. in view of Itoh et al. because Snodgrass et al. in view of Itoh et al. teaches a memory for storing response data and Denne et al. teaches each transponder includes error correctable data message that is pre-programmed and stored in memory to respond to the interrogation signal. Storing error correctable data in memory serve the purpose of simplifying the transponder circuitry.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U Brown whose telephone number is 703-305-3864. The examiner can normally be reached on 8:30-6:30 Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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August 2, 2004



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